

Trends In Cost, Length of Stay, And Mortality in Chronic Kidney Disease Patients On Dialysis Who Present With A Diverticular Bleed

Alexander Le MD, Anmol Mittal MD, Aaron Kahlam MD, Sushil Ahlawat MD

Rutgers New Jersey Medical School

Background: The prevalence of symptomatic bleeding in diverticulosis and diverticulitis is about 5-15%. Diverticular disease in chronic kidney disease (CKD) patients has been documented to have higher rates of complications such as perforation, mortality, and bleeding due to iatrogenic causes and/or platelet dysfunction. The healthcare costs, length of hospitalization, and mortality rates remain poorly understood in terms of those on HD who present with a diverticular bleed.

Methods: The Nationwide Inpatient Sample 2001-2013 database was queried for a primary diagnosis of diverticulitis and diverticulosis with hemorrhage using International Classification of Diseases, Ninth Revision (ICD-9) codes. CKD was stratified based on whether the patient was on dialysis. A one-way analysis of variance test with linear trend analysis was used to compare the mean length of stay, mean hospitalization cost, and mortality.

Results: The mean mortality rate was significantly higher in those undergoing HD compared to those not on HD. Mortality for HD patients decreased. For hospital charges, those who were on HD had an average hospital cost of \$18,835 more than those not on HD. Additionally, hospital charges for patients on HD who present with diverticular bleeding increased. Finally, the average LOS of patients on HD was longer than those not on HD. The average LOS for CKD patients on HD decreased.

Conclusion: In the CKD population who present with diverticular bleed, we expect those on HD to have worse due to their immunocompromised state and platelet dysfunction. However, it's reassuring that the overall mortality and length of stay has significantly decreased. This may be due to improved HD technology, advanced interventional techniques such as IR guided embolization, and better management of those on HD. As a consequence, the availability of more resources and increasing cost of medical technology, as well as inflation, may explain the increasing cost in hospital charges.

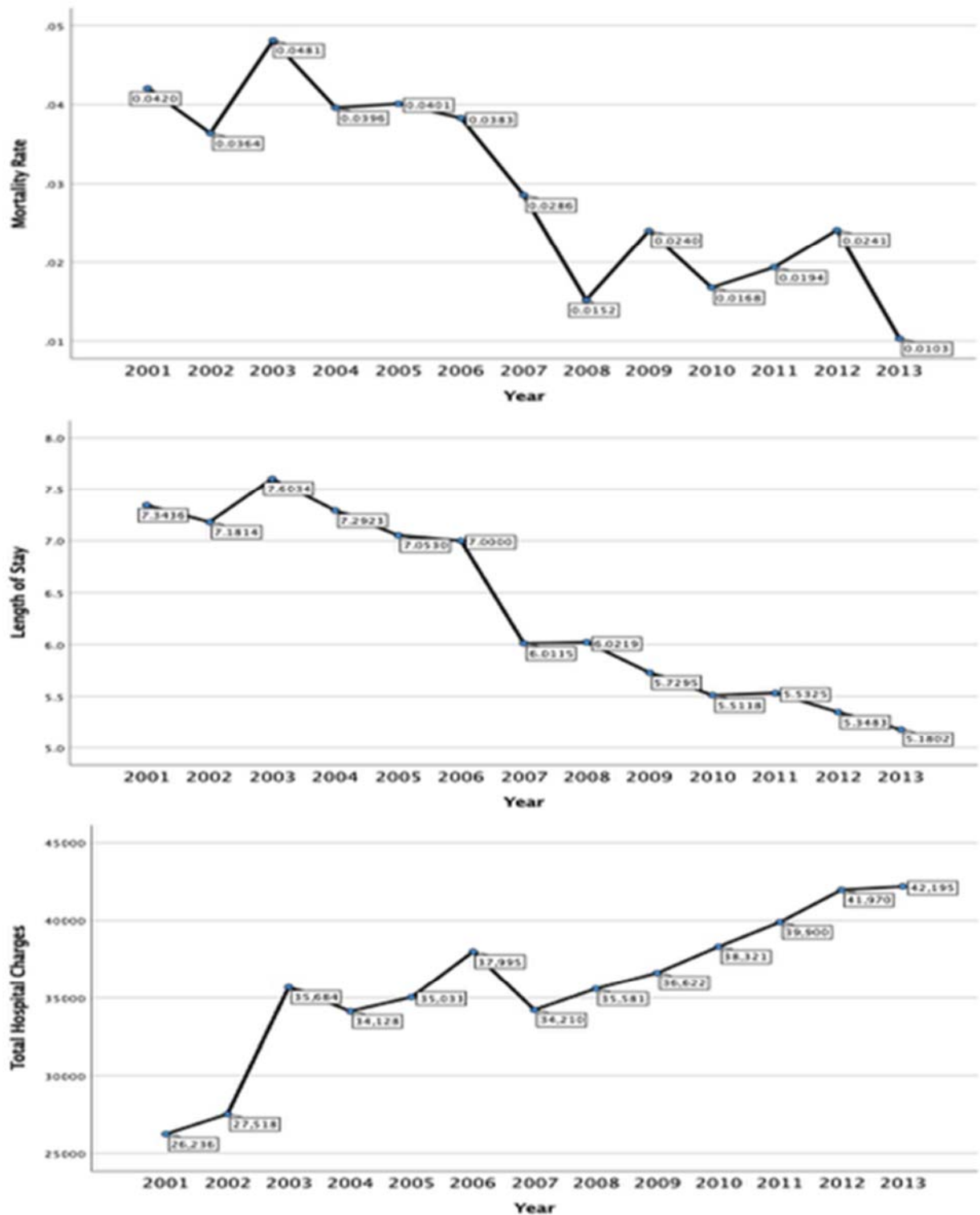


Figure 1-3: 1) Mortality rate of patients on HD presenting with diverticular bleeding vs. year 2) Length of stay of patients on HD presenting with diverticular bleeding vs. year 3) Total Hospital charges of patients on HD presenting with diverticular bleeding vs. year

